Listing of the Claims:

1. (original) A surface treatment apparatus comprising:

a sheet heating unit which heats a sheet;

a sheet cooling unit which cools the sheet while in contact with a contact member; and

a depression-and-protrusion shape control unit which forms depression-and-protrusion shapes by differently treating different parts of the surface of the sheet by at least one of the sheet heating unit and the sheet cooling unit.

2. (original) A surface treatment apparatus according to Claim 1, wherein the sheet heating unit heats the sheet in contact with the contact member.

3. (original) A surface treatment apparatus according to Claim 1, wherein the sheet comprises at least a thermoplastic resin layer formed with a thermoplastic resin, wherein the thermoplastic resin in the thermoplastic resin layer is a polyolefin resin.

4. (original) A surface treatment apparatus according to Claim 3, wherein the sheet heating unit heats the sheet to a temperature equal to or higher than the softening point of the thermoplastic resin in the thermoplastic resin layer.

5. (original) A surface treatment apparatus according to Claim 3, wherein the sheet cooling unit cools the sheet to a temperature less than the softening point of the thermoplastic resin in the thermoplastic resin layer.

6. (original) A surface treatment apparatus according to Claim 1, wherein the sheet comprises a base, and a thermoplastic resin layer and an image-forming layer above the base, and

the depression-and-protrusion shape control unit forms depression-and-protrusion shapes on the image-forming layer surface and the interface of the thermoplastic resin layer on the image-forming layer side.

7. (original) A surface treatment apparatus according to Claim 1, wherein the contact member has different qualities in at least one part.

8. (original) A surface treatment apparatus according to Claim 7, wherein the qualities are at least one of surface qualities and heat conducting properties.

9. (original) A surface treatment apparatus according to Claim 1, wherein the contact member is an endless belt.

10. (original) A surface treatment apparatus according to Claim 9, wherein the sheet heating unit comprises the endless belt, and a pair of heat rollers disposed in pressure contact from the inner side and outer side of the endless belt.

11. (original) A surface treatment apparatus according to Claim 1, wherein the sheet heating unit supplies a different heat amount in at least one part of the sheet.

12. (original) A surface treatment apparatus according to Claim 11, wherein the sheet heating unit comprises a thermal head.

13. (original) A surface treatment apparatus according to Claim 12, wherein the thermal head comprises plural heating elements disposed vertically and horizontally within a predetermined area.

14. (original) A surface treatment apparatus according to Claim 1, further

comprising:

a positioning unit which performs positioning of the sheet and the contact member.

15. (original) A surface treatment apparatus according to Claim 1, wherein the sheet is selected from a thermosensitive recording sheet, an inkjet sheet, an electrophotographic sheet, a hot developing sheet, a silver halide photography sheet, and a silver halide digital photography sheet.

16. (original) A surface treatment apparatus according to Claim 1, further comprising:

a preheating unit which preheats the sheet prior to heating by the sheet heating unit.

17. (original) An image-forming apparatus comprising:

an image-forming device which forms an image on a sheet; and

a surface treatment unit which performs surface treatment of the sheet on which the image is formed,

wherein the image-forming device comprising:

a sheet heating unit which heats the sheet;

a sheet cooling unit which cools the sheet in contact with a contact member; and

a depression-and-protrusion shape control unit which forms depression-and-protrusion shapes by differently treating different parts of the surface of the sheet by at least one of the sheet heating unit and the sheet cooling unit.

18. (original) An image-forming apparatus according to Claim 17, wherein the sheet comprises a thermoplastic resin layer formed with a thermoplastic resin,

wherein the thermoplastic resin in the thermoplastic resin layer is a polyolefin resin.

19. (original) An image-forming apparatus according to Claim 18, wherein the sheet heating unit heats to a temperature equal to or higher than the softening point of the thermoplastic resin in the thermoplastic resin layer.

20. (original) An image-forming apparatus according to Claim 18, wherein the sheet cooling unit cools to a temperature less than the softening point of the thermoplastic resin in the thermoplastic resin layer.

21. (original) An image-forming apparatus according to Claim 17, wherein the sheet comprises a base, and a thermoplastic resin layer and an image-forming layer on the base, and

the depression-and-protrusion shape control unit forms depression-and-protrusion shapes on the image-forming layer surface and the interface of the thermoplastic resin layer on the image-forming layer side.

22. (original) An image-forming apparatus according to Claim 17, wherein the contact member has different qualities in at least one part.

23. (original) An image-forming apparatus according to Claim 22, wherein the qualities are at least one of surface qualities and heat conducting properties.

24. (original) An image-forming apparatus according to Claim 17, wherein the contact member is an endless belt.

25. (original) An image-forming apparatus according to Claim 24, wherein the sheet heating unit comprises the endless belt, and a pair of heat rollers disposed

in pressure contact from the inner side and outer side of the endless belt.

26. (original) An image-forming apparatus according to Claim 17, wherein the sheet heating unit supplies a different heat amount in at least one part of the sheet.

27. (original) An image-forming apparatus according to Claim 26, wherein the sheet heating unit comprises a thermal head.

28. (original) An image-forming apparatus according to Claim 27, wherein the thermal head comprises plural heating elements disposed vertically and horizontally within a predetermined area.

29. (original) An image-forming apparatus according to Claim 17, further comprising:

a positioning unit which performs positioning of the sheet and the contact member.

30. (original) An image-forming apparatus according to Claim 17, further comprising:

a preheating unit which preheats the sheet prior to heating by the sheet heating unit.